REMARKS

This Amendment is responsive to the Office Action dated May 20, 2005, in which Claims 61-71, 73-74, 76-87, 89-92 were rejected. Claims 61 and 76 have been amended. Accordingly, Claims 61-71, 73-74, 76-87, and 89-92 are pending in the application, and are presented for reconsideration and allowance.

I.   **Claim Rejections, 35 USC §112**

The Office Action rejected Claims 61-71, 73-74, 76-87, 89-92 under 35 USC §112 as failing to comply with the written description requirement.

Applicant has amended the Detailed Description to remove instances of the word healthcare in relation to the presentation or the procedures to be performed. The Detailed Description as filed teaches that the healthcare desktop application can be a dental practice management software application or any type of practice management software application for healthcare (See Page 6, Line 4 of the Application as filed). Further, the Detailed Description as filed teaches that, in a preferred embodiment, the healthcare desktop application is a dental practice management application and that references to the healthcare desktop application can be in the context of a dental practice management software application (See Page 6, Lines 19-24 of the Application as filed). Other references to dental practice management software applications are found on Page 16, Line 1, and Page 17, Line 18 of the Application as filed. Applicant believes that noted cited teachings in the Detailed Description are adequate to show that the original filed specification is commensurate with the currently pending claims.

Applicant has amended the Detailed Description to recite more clearly that the healthcare desktop application can be a dental practice management application. A substitute Specification has been submitted with this Response as Attachment A.

Applicant believes no new matter has been added to the steps of the claims. With regard to Claim 61 step "a", Applicant believes that Claim 1 of the Application as filed supports the forming of a template and displaying the template. The indicator is supported by Claim 10 of the Application as filed.

Applicant believes Claim 61 step "b" is supported by Claim 10 of the Application as filed. Claim 61 step "c" is supported by Claim 16 of the Application as filed. Claim 61 step "d" is supported by Claim 10 of the Application as filed. The step of generating a dental presentation is supported by Claim 20 of the Application as filed. The step of storing the dental presentation is supported by Claim 1 of the Application as filed. The steps of presenting the dental presentation to the dental patient and the amended step of updating the records of the individual are supported by Claim 19 of the Application as filed. The step of recording the day and time of the presentation has been removed.

Further, Claim 62 is supported by Claim 2 in the Application as filed. Claim 63 is supported by Claim 5 in the Application as filed. Claim 64 is supported by Claim 4 in the Application as filed. Claim 65 is supported by Claim 6 in the Application as filed. Claim 66 is supported by Claim 7 in the Application as filed. Claim 67 is supported by Claim 8 in the Application as filed. Claim 68 is supported by Claim 9 in the Application as filed.

Applicant believes that no new matter has been added to the pending claims since all of the pending claims have support in the Application as filed. Support for pending claims not listed above can be found in the claims and the Detailed Description of the Application as filed.

Applicant believes no new matter has been added with these amendments. Reconsideration of the rejection to the claims is respectfully requested.

II.   Claim Rejections, 35 USC §103

The Office Action rejected Claims 61-71, 73-74, 76-87, 89-92 under 35 USC §103 as being unpatentable over *Sachdeva* US Patent Number 6,587,828 in view of *Clark* US Patent Number 6,171,112.

Applicant has amended independent Claim 61 to include the limitations of Claim 72 to recite that the template is scanned for markers and then dental information specific to the patient is inserted at the markers. Applicant has further amended Claim 61 to include the step of updating records of the individual in the dental desktop application to correspond to the indicated at least one dental procedure accepted by the individual in the presentation tool (See Page 14, Lines 20-30, and Page 16, Lines 20-24 of the Application as filed).

Sachdeva teaches a dental records management system for orthodontics. In particular, *Sachdeva* teaches a records management system that documents where wire brackets for braces are placed on teeth and the location of wire installation in the mouth. *Sachdeva* is used to save time and treatment costs for orthodontic practices by documenting the location of the installed equipment in the mouth and permitting the update of the installed equipment.

Sachdeva teaches a way to generate a patient treatment plan by, first, providing a list of health care services to a patient or health care provider (See Column 3, Lines 37-40 of '828). In contrast, in the Applicant's method, a template is first formed having *at least one dental procedure indicator for use as a point of incorporation* (emphasis added) for specific dental information on the recommended course of treatment (See Claim 61 of the Application). *Sachdeva* does not teach the use of markers or scanning for data input for markers (See Column 4, Lines 24-48 and Figure 2 of '828).

Applicant believes that providing a list of services is not the same as providing a template with an indicator as the point of incorporation of specific dental information on a recommended course of treatment. Lists are not the same as templates. Templates are typically forms that already contain formats and some entries with relational fields for use in compiling relevant data from a group of patients; lists are typically a collection of information. Applicant believes that use of a list does not suggest use of a template.

Sachdeva continues by teaching the step of prompting for input of digital information into a patient file regarding the patient when a healthcare service has been selected (See Column 5, Lines 34-38 of '828). Although this step appears similar to the Applicant's first step, Applicant uses a plurality of indicators and a one-click technique for the data entry (See Paragraph beginning on Line 10 of Page 7 of the Application as filed).

Sachdeva further teaches that the processing continues by determining whether a sufficient amount of digital information has been received into the patient file (See Column 5, Lines 49-51 of '828). A plan is then generated in accordance with a selected treatment (See Column 6, Lines 3-6 of '828). Simulated treatment is then generated. The simulated treatment is particular to *Sachdeva*.

Applicant's methods do not require or use a step of simulating treatment. Applicant teaches generating a dental presentation on a desk top that describes the dental procedures, wherein the dental procedures are personalized to a particular patient. Applicant's methods do not provide a simulation, rather the methods offer financial and health choices without simulating the result of the patient's choice on the patient's mouth.

Further, *Sachdeva* does not teach updating the records of the individual to reflect the procedure accepted by the individual.

Clark teaches the use of slides as part of a customized visual presentation, using date and time details. *Clark* does not teach the use of a template, indicators, and a one-click technique for the data entry. Further, *Clark* does not disclose updating records on a desktop application and, in fact, teaches away from updating the records in a desktop application. *Clark* notes the following:

"The archiving of electronic records is memory intensive, particularly where such information includes digitized video information. In an embodiment, system efficiency is improved by providing a central location for receiving digitized records and downloading the records to the selected storage media of the central location. This results in the use of fewer archiving devices where the information is provided to participants at different sites, such as for example, in the various departments of a hospital or at different hospitals within a given hospital system. Furthermore, the central records location provides for improved data security because personnel involved in archiving the data are substantially removed from the participant ensuring an additional layer of confidentiality for the participant.

However, where the information conveying/recording operation and the archiving operation are conducted at different sites, the transmission of the record of the learning session from one site to the other raises certain concerns. Among those concerns is that the transmitted data must be transmitted rapidly, inexpensively, free of errors, and with sufficient security. In addition, some temporary archiving should be provided at the site of the information conveying/recording operation until confirmation is received of the receipt and error-free archiving of the

-14-

record at the site of the permanent archiving operation. An embodiment provides electronic downloading of session records to the site of the permanent archiving operation, or the record repository. The electronic downloading may occur via the Internet, a dedicated local area network, leased private or semi-private data transmission lines, and combinations thereof, using encryption or other secure means, but is not so limited. The record repository of an embodiment uses security procedures to safeguard and limit access to the records stored therein." (See Col 10, Lines 25-59 of '112)

Applicant believes that *Clark* does not teach the missing elements of *Sachdeva* of using a scanned template for markers to insert patient specific dental information at the markers or updating records of the individual in the dental desktop application to correspond to the indicated at least one dental procedure accepted by the individual in the presentation tool.

Claims 62-71, 73, and 74 are dependant on Claim 61 and include all the limitations of Claim 61. Applicant, therefore, believes that these claims have been distinguished from the cited references.

Claim 76 is a tracking tool with a one click feature with markers embedded in the software template to call to fields from a related, relational database (See Paragraph beginning on Line 10 of Page 7 of the Application as filed). Applicant teaches a software program that extracts clinical and financial data and uses software, typically PowerPoint, to create a presentation with a single click. The one click technique to form dental presentations can be used to reduce liability to the dentist and increase the quality of patient care by providing a tool that provides data and personalized dental data on a patient for use with the patient. The tool also provides more information for a quality decision to be made by the patient by providing customized financial and health information on particular procedures customized for a particular patient. The software has templates that utilize markers to provide data to be inserted from a linked relational database to enable a customized presentation to be made for the patient in real-time. The documents that form the presentation reduce liability from patients who later claim they were "uninformed" or "misinformed" when the patients try to sue the dentist.

Claim 76 has been amended to reflect the amendments to Claim 61. *Sachdeva* teaches that a patient can acknowledge they have received results of a simulated treatment, but *Sachdeva* does not record the patient's choice of treatment in a desktop application as the Applicant's tool does (Column 6, Lines 3-33 of '828).

Sachdeva teaches a way to generate a patient treatment plan by, first, providing a list of health care services to a patient or health care provider (See Column 3, Lines 37-40 of '828). In contrast, in the Applicant's tool, a template is first formed having at least one dental procedure indicator for use as a point of incorporation for specific dental information on the recommended course of treatment (See Claim 61 of the application). *Sachdeva* does not teach the use of markers or scanning for data input for markers (See Column 4, Lines 24-48 and Figure 2 of '828). Applicant believes that *Clark* does not teach the missing elements of *Sachdeva*.

Claims 77-87 and 89-92 are dependant on Claim 76 and include all the limitations of Claim 76. Applicant, therefore, believes that these claims have been distinguished from the cited references.

Applicant believes no new matter has been added with these amendments. Reconsideration of the rejection to the claims is respectfully requested in view of the amendments and the corresponding remarks.

The Office Action rejected Claims 64-65 under 35 USC 103 as being unpatentable over *Sachdeva* US Patent Number 6,587,828, and *Clark* US Patent Number 6,171,112, in view of *Parker's* Microsoft Office 4 for Windows for Dummies.

As stated above, Applicant has amended independent Claim 61.

Parker teaches the use of plug-in tool bars to edit presentation and to exchange information reference (Pages 184 and 195-200 of *Parker*). *Parker* utilizes the customized visual presentations to increase patient knowledge and care and not to reduce doctor liability. *Parker* does not teach using a template that scans for markers and then inserts dental information specific to the patient at the location of the markers or updating records of the individual in the dental desktop application to correspond to the indicated at least one dental procedure accepted by the individual in the presentation tool.

-16-

Applicant believes that the claimed subject matter in the amended Claim 61 is distinguishable from *Sachdeva* and *Clark* even with the added teachings of a plug-in tool bar from *Parker*. Since Claims 64-65 are dependent upon Claim 61, reconsideration of the rejection to the claims is respectfully requested in view of the amendments and the corresponding remarks.

The Office Action rejected Claims 76-92 under 35 USC 103 as being unpatentable over *Sachdeva* US Patent Number 6,587,828, in view of *Parker's* Microsoft Office 4 for Windows for Dummies.
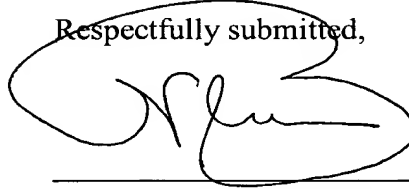
Applicant has amended independent Claim 76 to include the limitations of Claims 87-88 to recite that the system utilizes a merger application to scan for markers and then to insert dental information specific to the patient at the markers. *Sachdeva* does not teach the use of markers or scanning for data input for markers (See Column 4, Lines 24-48 and Figure 2 of '828).

Parker teaches the use of plug-in tool bars to edit presentation and to exchange information reference (Pages 184 and 195-200 of *Parker*). *Parker* utilizes the customized visual presentations to increase patient knowledge and care and not to reduce doctor liability. *Parker* does not teach using a template that scans for markers and then inserts dental information specific to the patient at the location of the markers.

Applicant believes that the claimed subject matter in the amended Claim 76 is distinguishable from *Sachdeva* even with the added teachings of a plug-in tool bar from *Parker*. Since Claims 77-92 are dependent upon Claim 61, reconsideration of the rejection to the claims is respectfully requested in view of the amendments and the corresponding remarks.

Applicant thanks the Examiner for her time and patience on this matter.

Respectfully submitted,

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DETAILED DESCRIPTION OF THE INVENTION

Figure 1 illustrates the steps in a preferred embodiment of the present invention that permits a user, with a single action such as a mouse click, to generate and possibly show a complete case presentation that describes recommended ~~healthcare~~ dental procedures for a given patient using information specific to that patient's ~~healthcare~~ dental record. The patient's ~~healthcare~~ dental record is usually stored in a database of a ~~healthcare~~ dental desktop application. The ~~healthcare~~ dental desktop application is preferably a dental practice management software application, however any type of practice management software for a healthcare profession can be used. The presentation that is created for the patient is generated in a format that permits the presentation to be shown to the patient using a presentation tool or software program. The presentation tool or software program is preferably a slide-based presentation tool or software program such as Microsoft PowerPoint or StarOffice Impress from Sun Microsystems, however any type of presentation tool or software program can be used.

Both the ~~healthcare~~ dental desktop application and the presentation tool are designed for execution on any type of general purpose computer or computer network having memory devices (e.g. RAM, ROM, hard disk, CD-ROM, etc.), processing units (e.g. CPU, ALU, etc.) and input/output devices (e.g. monitor, keyboard, mouse, printer, etc.).

In a preferred embodiment of the present invention, the ~~healthcare~~ dental desktop application is a dental practice management application. In the following description of the preferred embodiments the references to the ~~healthcare~~ dental desktop application ~~may be~~ are in the context of a dental practice management software application. However, it is to be understood that any healthcare practice management application can be used and ~~the~~ referenced[[s]] to dental specific items~~, e.g. procedures and terms, would be modified or changed to correspond to specific items of tae specific field of healthcare that relates to the healthcare practice management application~~.

Before starting the process of generating a presentation as shown in Figure 1, the user selects the ~~healthcare~~ dental procedures for the patient that form the basis for most of the content of the presentation. Figure 2 illustrates a window or dialog box 200 from a ~~healthcare~~ dental desktop

application that displays a list of proposed procedures 202 to be performed on a patient. The list of proposed procedures 202 is generated from ~~healthcare~~ <u>dental</u> procedures that have been previously identified by a ~~healthcare~~ <u>dental</u> provider as being needed by the patient. The list of proposed procedures are also preferably identified by their corresponding billing codes from the governing body. The user then selects the ~~healthcare~~ <u>dental</u> procedures from the list 202 that are to be included in the presentation to the patient. Upon selection of the ~~healthcare~~ <u>dental</u> procedures, an indicator 204 is displayed in the list 202 that identifies the selected procedures. The indicator 204 informs the use- that the corresponding ~~healthcare~~ <u>dental</u> procedure has been included in a presentation generated for the patient.

In another embodiment of the present invention, all pending procedures for a patient stored in the ~~healthcare~~ <u>dental</u> desktop application can automatically be selected for inclusion in the presentation to the patient. In this embodiment, the user can begin the single action process for generating a presentation for a patient without having to select the procedures to be included in the presentation. The automatic selection of all procedures can simplify the process for generating a presentation and permit the user to more quickly generate a presentation for a patient.

After the ~~healthcare~~ <u>dental</u> procedures to be included in the presentation have been selected, the process shown in Figure 1 is started to generate a presentation for a patient. The process can be started by selecting a button from a toolbar displayed in the ~~healthcare~~ <u>dental</u> desktop application, e.g. a "Build Presentation" button, or by selecting a menu option from a menu included with the ~~healthcare~~ <u>dental</u> desktop application, e.g. a "Build Presentation" menu option. However, any other similar type of action such as a keyboard command can also start the process shown in Figure 1. The selection of the "Build Presentation" button or menu option is the single action on that starts the process of generating a presentation for a patient.

Referring back to Figure 1, a "Master" is selected by the system in step 102. The Master is a template used for constructing the presentation and serves several purposes. First, the Master includes general information that the user wants to show to a patient in every presentation. Examples of this type of general information can be the ~~healthcare~~ <u>dental</u> practice name and

address, the list of providers in the practice, the list of specialties or services offered by the practice, a description of infection control procedures, general payment policies or any other similar type of background or non-patient specific information. Second, the Master designates a common look or theme for the presentation. The look or theme of the presentation may be a color scheme or business logo. Third, the Master presents common information in a consistent manner on every presentation, thereby reducing the chance for errors or misinformation. Also, having a Master presentation template makes it very simple to implement changes for all presentations by only having to make the change in the Master presentation template. For example, if the ~~healthcare~~ dental office needs to change its hours of operation, the user would modify the hours of operation included in the Master presentation template and then any subsequently generated presentation would have the new hours of operation. Most importantly, the Master controls the order of the information in the presentation and reduces the possibility of errors in presenting the information to the patient. Figure 3 illustrates a sample Master template that has six pages. As part of the single action process, e.g. one click of the mouse, the Master is selected automatically by the ~~healthcare~~ dental desktop application and can be thought of as a type of default Master template. However, in another embodiment of the' present invention that is described later, the user is permitted to select from multiple Master presentation templates, choosing the one that is best suited for the given patient and/or situation.

In step 104, the ~~healthcare~~ dental desktop application starts the presentation tool. The presentation tool can preferably be started as a background application, with little or no knowledge by the user that the presentation tool has been started by the ~~healthcare~~ dental desktop application. However, the ~~healthcare~~ dental desktop application can start the presentation tool in other known manners. In step 106, the selected Master presentation template is loaded into the presentation tool. A command from the ~~healthcare~~ dental desktop application preferably directs the presentation tool to accomplish the loading of the selected Master presentation template into the presentation tool. In step 108, the ~~healthcare~~ dental desktop application obtains a selected ~~healthcare~~ dental procedure from the list of selected ~~healthcare~~ dental procedures. The ~~healthcare~~

dental desktop application obtains a procedure information file that corresponds to the obtained selected ~~healthcare~~ dental procedure in step 110. Preferably, the procedure information file is associated with the corresponding billing code for the procedure.

Procedure information files are stored in the memory devices of the computer or network and are in the same format as the Master presentation template, i.e. a format understood by the presentation tool or software program. A separate procedure information file exists for most ~~healthcare~~ dental procedures in a particular discipline (e.g. there is one file for each ADA procedure code). A procedure information file preferably includes one or more procedure in formation pages or slides that have information on a particular procedure and may include text, pictures, charts, multimedia (.AVI files), sound (.WAV files), animation or other information in any form supported by the presentation software program. Figure 4 illustrates two sample pages that may be included in procedure information files. Another embodiment of the present invention that is described later allows the user to customize a Master presentation template or the pre-configured procedure information pages in the procedure information files.

Next, in step 112, the procedure information pages from the procedure information file that is associated with the selected procedure are inserted into the Master presentation template at the appropriate place, if and only if the procedure information pages for the selected procedure have not been previously inserted into the Master presentation template.
If a certain procedure is included multiple times in the list of selected procedures, only one set of procedure information pages associated with the procedure is preferably inserted into the presentation. The procedure information pages are preferably inserted into the Master presentation by the presentation tool. Preferably the Master template loaded into the presentation tool includes an indicator or flag that informs the presentation tool where to insert the procedure information pages from the procedure information file. An example of an indicator in the Master template is illustrated in page 5 of Figure 3. Page 5 of Figure 3 is the page in that sample Master template that informs the ~~healthcare~~ dental desktop application where to insert the procedure information pages into the Master template. A page similar to page 5 is required in all Master templates to permit procedure information pages from

the procedure information files to be inserted into the Master template. The page in the Master template with the indicator is preferably not displayed to the patient, only the procedure information pages inserted into the presentation at the indicator. Together, the Master presentation template and the procedure information pages form the basis for the presentation on the recommended course of treatment. In step 114, the ~~healthcare~~ dental desktop application checks the list of selected procedures to see if there are any more selected procedures. If there are more selected procedures in the list of selected procedures the process is returned to step 108, and another procedure information file is loafed into the Master presentation template, as described above with regard to steps 110-114. If there are no more selected procedures to be included in the Master presentation template, the Master presentation template with the merged procedure information pages is saved in step 116.

The merging of the Master presentation with the procedure information pages fro n the procedure information files for all selected procedure codes is done using a process known as Automation. Automation is a process whereby a software component makes available sortie or all of its data and functionality to other independent software components. Automation allows the ~~healthcare~~ dental desktop application to control the presentation software program, telling it how to construct the presentation. After the procedure information pages from the procedure information files are merged with the Master presentation, a copy of the newly combined presentation is saved in a file on the computer or network in step 116. This saved copy is the presentation for the planned course of treatment for that patient on that date, and is integrated into the patient's clinical record included in the ~~healthcare~~ dental desktop application.

Next, information specific to the patient is added to the newly created presentation. The adding of patient specific information is begun by automatically scanning the newly created presentation for Placeholders or Markers in step 118. The presentation software program preferably identifies any Placeholders in the newly created presentation. The Placeholders, which are recognized and operational only when used in conjunction with the ~~healthcare~~ dental desktop application, designate where and how to input the case specific information from the ~~healthcare~~ dental

desktop application in the newly created presentation. In other words, Placeholders are merely indicators in the pages of the Master template or the procedure information files where case specific information is to be inserted into the presentation.

In step 120, a check is made to see if a Marker has been located in the newly created presentation. If a Marker has been located, the ~~healthcare~~ dental desktop application interprets the Marker and gathers the appropriate information from the database of the ~~healthcare~~ dental desktop application in step 122. The presentation software program then receives the corresponding information from the ~~healthcare~~ dental desktop application and inserts the information in place of the Marker in step 124. After inserting the information in place of the Marker in step 124, the presentation software program returns to step 118 and scans the newly created presentation for another Marker or Placeholder. Figure 7 illustrates a flowchart describing an alternate process of replacing the Placeholders with data from the ~~healthcare~~ dental desktop application in the newly created presentation that is similar to steps 118-124 of Figure 1.

Figure 6 illustrates several sample Placeholders that could be included in a page or slide of the newly created presentation. Each Placeholder identifies some specific piece of information about the patient, practice, or provider, or any other information stored in the database of the ~~healthcare~~ dental desktop application. For example, Placeholder 602 would indicate that the patient's name (obtained from the ~~healthcare~~ dental desktop application) is to be inserted into the presentation at the location of the Placeholder 602. The same applies for Placeholder 604 with regard to the patient's address. The specific information, whether it relates to the patient, provider, practice or other information, is gathered through a data exchange process between the ~~healthcare~~ dental desktop application and the presentation software program, in real-time. It is important to exchange data between the two disparate software applications in real-time to permit the most up-to-date and accurate information to be inserted into the newly created presentation. Another embodiment of the present invention that is described later relates to the se ting up and customizing of the Placeholders in the Master or in the procedure information pages.

In another embodiment of the present invention, if the corresponding information relating to a Placeholder cannot be located by the ~~healthcare~~ dental desktop application or does not exist in the ~~healthcare~~ dental desktop application, the Placeholder is left in the presentation and the process is continued at step 118. The user can then either insert the information manually or delete the Placeholder, both of which are described below. Alternatively, an error message can be presented to the user when the corresponding information of a Placeholder cannot be located.

After all Placeholders are replaced with actual data and no more Placeholders are located in step 120, the presentation is complete and ready for viewing. The single action process is completed by permitting the user to view or customize the presentation. Once the single action process is completed, the user can show the completed presentation to the patient using the presentation tool.

In another preferred embodiment of the present invention, the user may elect to have multiple Master presentations. The use of multiple Master presentations may be either necessary or desirable to a given ~~healthcare~~ dental practice. One example of the use of multiple Master presentations or templates is to have a different presentation for an insured patient versus a non-insured patient. Another example is to have a different presentation for each provider in the practice. A third example is to have a different presentation for a parent of a child patient versus an adult patient. In these situations, or in any other situation where the user wants multiple Master presentations, the user must then chose the Master presentation template for each case presentation that is constructed. The use of multiple Master templates would change step 102 in Figure 1 to prompt the user to select the Master template the user desires to use as the basis for his/her presentation instead of the ~~healthcare~~ dental desktop application selecting the Master template. A default template can also be designated, if the user does not know which Master template to us - for generating a presentation.

Figure 8 illustrates a sample window or dialog box 800 from the ~~healthcare~~ dental desktop application that can be used for selecting the Master template or blueprint. The user can select the Master template to be used from a list of Master templates 802. In addition, the user has other

options available with regard to the selection of a Master template. The user can preview the layout of the Master template to decide if the selected Master template is the correct one. In addition, the user can load or import another Master template from outside of the ~~healthcare~~ dental desktop application and use that one instead of the Master templates presented in the list of Master templates 802.

In another preferred embodiment of the present invention, the user can customize the Master presentation templates through the use of an add-in tool bar that appears in the presentation software, but is designed and programmed for use with the ~~healthcare~~ dental desktop application. Figure 9 illustrates a partial view of the presentation tool 900 that includes the add-in tool bar 902. However, in order to use the add-in tool bar 902, the presentation tool or software program must be configured to accept a software plug-in or add-in component. Some common methods for implementing an add-in component are as an Active-X extension or control, or as a V.3A (Visual Basic for Applications) macro, although other similar methods can be used for implementing an add-in component. The ~~healthcare~~ dental application interface plug-in tool bar 902 adds functionality to the presentation software program, essentially linking the ~~healthcare~~ dental desktop application and the presentation software program by enabling data to be exchanged and functionality to be shared between them.

To customize a Master presentation template the user starts by opening a Master presentation template for editing. Figure 10 illustrates one way of utilizing the ~~healthcare~~ dental application interface add-in tool bar 902 for opening a Master presentation template for editing. The user selects an option in the toolbar that presents a pop-up window 1002 with an "Open" command 1004. The selection of the "Open" command 1004 results in another pop-up window 1006 being displayed where the user can select the "Case Blueprint" menu option 1008 that displays to the user the Master templates or blueprints available to the user for editing. Once the user selects the Case Blueprint menu option 1008, the user is presented with a selection window or dialog box 1050 shown in Figure 11 to select a Master template for customization.

Once the user selects a Master template from the dialog box 1050, the selected Master template is opened and displayed in the presentation software program. The user can then select a slide or page of the Master template for customization, whereby elements of the presentation can be added, deleted or changed and then saved, as needed, using either the cap abilities and functionality provided through the ~~healthcare~~ dental application interface add-in tool bar 902 or included in the presentation software program 900. In addition, Placeholders can be inserted into, or deleted from, the Master presentation to provide more customization capability, by selecting the appropriate menu option from the ~~healthcare~~ dental application interface add-in tool bar 902. When a Placeholder insertion type of customization is selected through the ~~healthcare~~ dental application interface add-in tool bar 902, a Placeholder object is created and inserted onto the slide of the Master template. For example, to include the patient's picture on a slide, select the Insert, Placeholder, Portrait commands (not shown) from the ~~healthcare~~ dental application interface add-in tool bar 902. The Portrait Placeholder is inserted on the slide and can be resized or positioned as necessary. This process can be repeated for any number or type of Placeholders.

In another embodiment of the present invention, the user can create a new Master template by selecting appropriate menu options from the ~~healthcare~~ dental application interface add-in tool bar 902. The user can add in any type of pages that the user desires. However, the user must include a page similar to page 5 in Figure 3 that includes the indicator to the ~~healthcare~~ dental desktop application on where to insert the procedure information pages.

In another preferred embodiment of the present invention, the user can customize procedure information pages through the use of the ~~healthcare~~ dental application interface add-in tool bar 902 that is attached to the presentation software 900 similar to the procedure described above for customizing the Master templates. Again, to be able to customize procedure information pages, the presentation software program must accept a software plug-in or add-in component. The ~~healthcare~~ dental application interface plug-in tool bar 902 adds functionality to the presentation software program, essentially linking the ~~healthcare~~ dental desktop application and the

presentation software program by enabling data to be exchanged and functionality to be shared between them.

To customize procedure information pages, the user starts by opening a procedure information file for editing. Figure 12 illustrates one way of utilizing the ~~healthcare~~ dental application interface add-in tool bar 902 for opening a procedure information page for editing. The user selects an option in the ~~healthcare~~ dental application interface add-in. tool bar 902 that presents a pop-up window 1002 with an "Open" command 1004. The selection of the "Open" command 1004 results in another pop-up window 1006 being displayed where the user can select the "ADA Procedure Presentation" menu option 1202 that displays to the user the procedure information files available to the user for editing. Once the user selects the ADA Procedure Presentation menu option 1202, the user is presented with a selection window or dialog box 1250 shown in Figure 12a to select a procedure information file for customization.

After the procedure information file is opened and displayed in the presentation software, a slide is selected for customization. Elements in the presentation information file can be added, deleted or changed and then saved, as needed. In addition, Placeholders can be inserted into, or deleted from, the procedure information pages to provide more customization capability, by selecting the appropriate menu option from the ~~healthcare~~ dental application interface add-in tool bar 902. When a Placeholder insertion type of customization is selected through the ~~healthcare~~ dental application interface add-in tool bar 902, a Placeholder object is created and inserted onto the slide. For example, to include the patient's dental chart on a slide, select the Insert, Placeholder, Patient Charts, Restorative Charts, Current commands (not shown) in ~~healthcare~~ dental application interface add-in toolbar 902. The Current Chart Placeholder is inserted on the slide and can be resized or positioned as necessary. This process can be repeated for any number or type of Placeholders.

Another embodiment of the present invention relates to the variety and accessibility of the information that is available for insertion into the presentation. Through the use of Automation, a data exchange process has been put in place that allows the ~~healthcare~~ dental application program to

-28-

access and/or exchange data with the presentation software program, despite the fact that they are both separate, independent software components. This data exchange is the key to the building of a case presentation based on the specific patient, the current diagnosis, and planned course of treatment. The data exchange process can include any information and essentially is only bound by what information is stored by the ~~healthcare~~ dental desktop application. Information is inserted in one of two ways. The first way is through the use of Placeholders, whereby the information is read and placed into the presentation during the creation phase of the presentation. At this time, all Placeholders are replaced with the actual data taken from the ~~healthcare~~ dental desktop application database. The second way is by direct insertion of the information into the presentation, after the process of Figure 1 has created the presentation, but usually before the presentation is shown to the patient. The direct insertion of information provides the opportunity to provide the most detailed and specific customization to that case, as only that one patient presentation is being changed.

The direct insertion of information is accomplished using the ~~healthcare~~ dental application interface add-in tool bar 902. To directly add information to the presentation, the user starts by opening the particular presentation for editing. The user selects an option in the ~~healthcare~~ dental application interface add-in toolbar 902 that presents a pop-up window 1002 with an "Open" command 1004. The selection of the "Open" command 1004 results in another pop-up window 1006 being displayed where the user can select the "Patient Case Presentation" menu option 1204 (see Figure 12) that prompts the user to select a patient and then a case file to open for the direct insertion of information. After the presentation is opened and displayed in the presentation software, a slide is selected by the user for customization and the insertion of information. Any element of the presentation can be changed and saved as needed. In addition, other information can be taken from the ~~healthcare~~ dental desktop application and inserted into the presentation to provide more customization capability, simply by selecting the appropriate menu options (not shown) from the ~~healthcare~~ dental application interface add-in tool bar 902. When the direct insertion of information is accomplished through the ~~healthcare~~ dental application interface add-in tool bar

902, actual data is retrieved from the database of the ~~healthcare~~ dental desktop application and inserted onto the slide. The information that can be inserted from the database of the ~~healthcare~~ dental desktop application may include text, pictures, charts, multimedia (.AVI files), sound (.WAV files), animation or other information that is stored in the database and supported by the presentation software program. A particular menu option in the ~~healthcare~~ dental application interface add-in tool bar 902 can be used to perform this task. For example, to include the patient's dental chart on a slide, select the Insert, Patient Data, Images, Patient Charts, and Restorative Chart commands (not shown) from the ~~healthcare~~ dental application interface add-in tool bar 902. The current restorative chart for that patient is inserted on the slide and can be resized or positioned as necessary. This process can be repeated for any number or type of data stored in the ~~healthcare~~ dental desktop application such as the patient's insurance carrier. In addition, the user can also add other information to the presentation, remove information from the presentation or change information in the presentation.

In another preferred embodiment of the present invention, the user has the ability to mark some or all of the recommended courses of treatment shown to the patient in the presentation as accepted by the patient. Figure 13 illustrates the process of marking the patient's acceptance of recommended courses of treatment. To begin, in step 1302 the user selects an "Accept" option (not shown) from the ~~healthcare~~ dental application interface add-in tool bar 902 in the presentation software program. It is important that the Accept option is accessed from the ~~healthcare~~ dental application interface add-in tool bar 902 inside the presentation software program for two reasons. First, the patient is most likely to agree to recommended courses treatment immediately after viewing the presentation with the presentation software program. Second, it is most efficient to have access to the acceptance functionality without leaving the presentation software program and having to return to the ~~healthcare~~ dental desktop application. However, for the acceptance functionality to operate properly the ~~healthcare~~ dental desktop application must be able to track and distinguish accepted planned treatments from non-accepted planned treatments. In step 1304, a ~~healthcare~~ dental desktop application extension dynamic link library (DLL) is called to access

-30-

the treatment plan for the patient. The treatment plan for the patient can include the procedures that were included in the list of proposed procedures 202 or only the procedures from the list of selected procedures that were included in the presentation. In one embodiment of the present invention, the treatment plan for the patient is displayed to the patient with the presentation soft ware program. In step 1306, the user selects the proposed treatments that have been accepted by the patient. In step 1308, the user confirms his/her selections of accepted treatments. In step 1310, the list of treatments is displayed. In one embodiment of the present invention, the list of treatments is displayed to the patient and preferably includes those treatments that were accepted by the patient. Finally, in step 1312, the treatment items that are accepted by the patient are marked as such in the ~~healthcare~~ dental desktop application's database.

Another preferred embodiment of the present invention provides that all patient case; presentations, once created, get stored and logged into a document management system, whereby they are cataloged for easy and quick retrieval in the ~~healthcare~~ dental desktop application. The storage of all patient case presentations provides several benefits to the user. First, case presentations become a permanent part of the patient's clinical record. Second, the case presentations can easily be recalled or reviewed at a later date, for legal or other purposes.

In another embodiment of the present invention, secure access is controlled through the password and security system of the ~~healthcare~~ dental desktop application, preventing unauthorized viewing or editing of the patient's confidential clinical information.

Figure 5 illustrates a conceptual model for the creation of case presentations. As shown in Figure 5, the ~~healthcare~~ dental desktop application interacts with the presentation software to combine the Master presentation template and the procedure information files and pages to generate a case presentation to show to a patient. The ~~healthcare~~ dental desktop application issues commands to the presentation software and the presentation software makes data requests of the ~~healthcare~~ dental desktop application to generate the case presentation for the patient.

Although the present invention has been described in connection with specific examples and embodiments, those skilled in the art will recognize that the present invention is capable of other variations and modifications within its scope. These examples and embodiments are intended as typical of, rather than in any way limiting on, the scope of the present invention as presented in the appended claims.

The invention has been described in detail with particular reference to certain preferred embodiments thereof, but it will be understood that variations and modifications can be effected within the spirit and scope of the invention.